



BOSTON REGION METROPOLITAN PLANNING ORGANIZATION

Stephanie Pollack, MassDOT Secretary and CEO and MPO Chair
Tegin L. Teich, Executive Director, MPO Staff

TECHNICAL MEMORANDUM

DATE: December 17, 2020
TO: Boston Region Metropolitan Planning Organization
FROM: Chen-Yuan Wang, MPO Staff
RE: Selection of FFY 2021 Subregional Priority Roadway Study Location

1 BACKGROUND

During the Metropolitan Planning Organization's (MPO) outreach to develop the Unified Planning Work Program (UPWP) and Long-Range Transportation Plan (LRTP), Metropolitan Area Planning Council (MAPC) subregional groups and other entities submit comments and identify transportation issues that concern them. Often, these issues are related to bottlenecks, safety, or lack of safe or convenient access to abutters along roadway corridors. They can affect not only mobility and safety along a roadway and its side streets, but also livability, quality of life, economic development, and air quality.

To address these concerns, MPO staff developed a work program titled Addressing Safety, Mobility, and Access on Subregional Priority Roadways. The program adheres to the following MPO goals.

- Safety—make all modes safe
- Preservation—maintain the system
- Capacity Management and Mobility—use existing facility capacity more efficiently and increase healthy transportation capacity
- Clean Air/Clean Communities—create an environmentally friendly transportation system
- Transportation Equity—provide comparable transportation access and service quality among communities, regardless of income level or minority population
- Economic Vitality—ensure our transportation network serves as a strong foundation for economic vitality

The program has been well received by municipalities and the Massachusetts Department of Transportation (MassDOT) district offices and has been included

in the UPWP since 2013, including this federal fiscal year (FFY) 2021.¹ Another purpose of the study is to identify roadway segments in the MPO region that are of concern to subregional groups but have not been cited in the LRTP regional needs assessment.²

The study emphasizes issues identified by the relevant subregional groups, along with recommendations to address the identified issues. In addition to topics about mobility, safety, and access, it includes bicycle, pedestrian, and freight transportation, transit feasibility, and other subjects raised by subregional groups.

This memorandum presents the procedure used to select roadways for the study, including data gathering; selection criteria; roadway rating; the roadway corridor chosen for study; and a summary.

2 SELECTION PROCEDURE

Selecting the study location comprised three steps:

- 1) Gathering data and identifying potential roadways
- 2) Developing selection criteria
- 3) Rating potential roadways

2.1 Gathering Data and Identifying Potential Roadways

MPO staff identified potential study roadways through various means:

- Soliciting suggestions for study locations during recent outreach for developing the MPO's FFY 2021 UPWP
- Reviewing meeting records from the UPWP outreach process for the past nine years (2012 to present) to identify roadways that had been proposed for study by subregions
- Reviewing the roadways that are being monitored as part of the MPO's Congestion Management Process program, and identifying those with delay or safety concerns
- Contacting subregions, the MassDOT Highway Division district offices, and municipalities for further information about some of the potential study roadways

¹ Unified Planning Work Program, Federal Fiscal Year 2021, endorsed by the Boston Region Metropolitan Planning Organization on July 16, 2020.

² Boston Region MPO Work Program for Addressing Priority Corridors from the Long-Range Transportation Plan Needs Assessment: Federal Fiscal Years 2012–20.

MPO staff then assembled the following detailed data for these roadways:

- MassDOT 2014 Road Inventory File—used to assemble roadway jurisdiction, average daily traffic, sidewalk width, shoulders, and other geometric information
- MassDOT 2013–17 crash database—used to assemble high-crash locations, pedestrian and bicycle crashes, and crash rates
- MPO bike network gap data and MassDOT bike facilities—used to identify bicycle needs, connectivity, and accommodation
- Massachusetts Bay Transportation Authority (MBTA) bus route, subway line, and commuter data—used to identify segments serving MBTA bus routes and transit stations
- Data from MassDOT's project-information database, the MPO's 2021–25 Transportation Improvement Program (TIP) projects, MPO planning and other studies, and municipal websites—used to identify projects, studies, and TIP projects planned or programmed for each roadway

Locations with projects that currently are under construction, in design, under study, or programmed in the TIP were excluded from further consideration. After the exclusion, MPO staff identified 21 potential roadway segments in the region. Table 1 presents data assembled for each roadway segment and indicates municipality, MAPC subregion, MassDOT district office, jurisdiction, length, functional class, average daily traffic, overall crash rates, bicycle/pedestrian crashes per mile, Highway Safety Improvement Program (HSIP)-eligible crash clusters,³ and any relevant studies or projects. It also cites results of applying the selection criteria, and priority rating. Roadway segments are sorted by score, MassDOT District, and roadway name.

2.2 Selection Criteria

MPO staff examined roadway locations more closely and prioritized locations by applying a score based on safety conditions, multimodal significance, subregional priority, implementation potential, and regional equity.

- *Safety Conditions, 0–2 points (each bullet counts as 1 point)*

³ HSIP-eligible crash clusters are defined by MassDOT as crash clusters that rank within the top five percent of crash clusters for each Regional Planning Agency, based on the Equivalent Property Damage Only (EPDO) index. In the EPDO index, property-damage-only and severity unknown crashes are awarded one point each, fatal crashes and crashes involving injuries are given 21 points each. In the Boston Region MPO, 452 intersections are identified from MassDOT 2015–17 Crash Data as the top five percent crash clusters with a minimum EPDO value of 114.

- Location has higher-than-average crash rate for its functional class or contains two or more HSIP-eligible intersections
- Location has significant number of pedestrian and bicycle crashes (two or more per mile) or lacks sufficient pedestrian or bicycle accommodations⁴
- *Multimodal Significance, 0–2 points (each bullet counts as 1 point)*
 - Location currently supports transit, bicycle, pedestrian, or heavy vehicle activities or needs to support these activities
 - Location has significant potential to improve transit, bicycle, pedestrian, or heavy vehicle activities
- *Subregional Priority, 0–2 points (each bullet counts as 1 point)*
 - Location is essential for subregion’s economic, cultural, or recreational development
 - Location carries significant portion of subregional vehicle, bicycle, or pedestrian traffic
- *Implementation Potential, 0–3 points (each bullet counts as 1 point)*
 - Location is proposed or endorsed by its subregion and is a priority for that subregion
 - Location is proposed or endorsed by its roadway administrative agency (agencies)
 - Location has strong support from all of its stakeholders
- *Regional Equity, 0–1 points (each bullet counts as 1 point)*
 - Location is situated in a subregion that has not been selected for this study in the past two years

2.3 Rating Potential Roadways

Roadway segments with a score of five points or fewer were rated as low priority. Roadway segments with a score of six to seven points were rated medium priority. Roadway segments with a score of eight or more points were rated high priority. Among the 21 potential locations, MPO staff identified four as high priority:

- 1) Plain Street, Grove Street, and Columbian Street in Braintree

⁴ Sufficient pedestrian accommodation is defined as more than 80 percent of the roadway containing minimal five-foot sidewalks in both directions, and sufficient bicycle accommodation as more than 80 percent of the roadway containing minimal five-foot shoulders (or bicycle lanes) in both directions.

- 2) Route 135 in Ashland
- 3) Route 1 in Wrentham
- 4) Washington Street in Canton

Staff also evaluated the pedestrian accommodation and safety improvement needs for the four locations by applying the MPO's Pedestrian Report Card Assessment.⁵ All four locations qualify highly for pedestrian accommodation or safety improvement requirements. Appendix A contains detailed results of the assessments.

3 SELECTED STUDY LOCATION: PLAIN STREET, GROVE STREET, AND COLUMBIAN STREET IN BRAINTREE

MPO staff recommends Plain Street, Grove Street, and Columbian Street in Braintree for this study cycle, based on the following considerations:

- The study site has strong support from all stakeholders, including representatives from Braintree and MassDOT District 6.
- The corridor has a crash rate much higher than the state average of the same functional class and a high pedestrian and bicycle crash rate. Based on the recent five-year (2013–17) MassDOT crash data, a total of 171 crashes occurred in the corridor. Among them, 70 crashes caused personal injuries, five are identified as crashes involving a person who walked, and two are identified involving a person who biked.
- The corridor is essential for the subregion's economic development. It contains mixed land uses, including commercial and multi-unit residential, with a number of ongoing and planned developments.
- The corridor lacks accommodation for people who bike and has insufficient accommodation for people who walk. There are many sidewalk gaps, especially on the south side.
- The corridor is located in an area with a high proportion of senior and young population.
- The roadway has potential for Complete Streets improvements.

Figure 1 shows the locations of this study and the previously studied corridors in the region. The selected corridor is approximately 1.8 miles in total length. All the segments in the corridor are classified as Urban Minor Arterial and are under MassDOT jurisdiction.

⁵ Ryan Hicks and Casey-Marie Claude, Pedestrian Level-of-Service Memorandum, Boston Region Metropolitan Organization, January 19, 2017.

The selected roadways belonged to the “Old Route 128” corridor, which runs parallel to Interstate 93 and Route 3 and carries regional and local traffic. The corridor contains various land uses, including large-scale shopping plazas and street-front commercial developments, senior living residential developments, multi-unit condos and apartments, and single-family residences. Meanwhile, there are a number of ongoing and planned developments in the corridor.

MassDOT Highway Division District 6 recommended this roadway for study to explore Complete Streets needs and safety improvements for all users of the roadway, especially for those who walk. The Town of Braintree expressed that residents and locals have been concerned about this corridor because of the high crash rate and crashes caused by high vehicle travel speeds. Support letters for this study from the Town’s representatives and the mayor are included in Appendix B.

4 SUMMARY

The selection of this corridor meets the objectives of this study. Meanwhile, it will support the MPO goals by improving subregional transportation safety and mobility and promoting regional economic vitality.

MPO staff will submit this proposal to the MPO for discussion and approval. If the MPO approves this selection, staff will meet with officials from Braintree, MassDOT, and MAPC to discuss the study specifics, conduct field visits, collect data, and perform various analyses.

The Boston Region Metropolitan Planning Organization (MPO) operates its programs, services, and activities in compliance with federal nondiscrimination laws including Title VI of the Civil Rights Act of 1964 (Title VI), the Civil Rights Restoration Act of 1987, and related statutes and regulations. Title VI prohibits discrimination in federally assisted programs and requires that no person in the United States of America shall, on the grounds of race, color, or national origin (including limited English proficiency), be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination under any program or activity that receives federal assistance. Related federal nondiscrimination laws administered by the Federal Highway Administration, Federal Transit Administration, or both, prohibit discrimination on the basis of age, sex, and disability. The Boston Region MPO considers these protected populations in its Title VI Programs, consistent with federal interpretation and administration. In addition, the Boston Region MPO provides meaningful access to its programs, services, and activities to individuals with limited English proficiency, in compliance with U.S. Department of Transportation policy and guidance on federal Executive Order 13166.

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A complaint form and additional information can be obtained by contacting the MPO or at http://www.bostonmpo.org/mpo_non_discrimination. To request this information in a different language or in an accessible format, please contact

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TABLE 1
Roadway Segments Considered for Study (Selected Segment is Highlighted in Blue)
Subregional Priority Roadways Study

Roadway	Location	Community	MAPC Subregion	MassDOT District	Jurisdiction	Length (Miles)	Functional Classification*	Average Daily Traffic	Number of Crashes 2013-17	Number of Injury and Fatal Crashes 2013-17	Number of Bicycle Crashes 2013-17	Number of Pedestrian Crashes 2013-17	Statewide Average Crash Rate (MVT)	Corridor Overall Crash Rate (MVT)	Pedestrian and Bike Crashes Per Mile	HSIP-Eligible Crash Clusters 2015-17	Study, Project, or TIP Project	Safety Conditions	Multimodal Significance	Subregional Priority	Implementation Potential	Regional Equity	Score	Overall Assessment	Summary of Comments
Plain Street, Grove Street, and Columbian Street	Hancock Street to Weymouth town line	Braintree	SSC	6	MassDOT	1.8	5	12,000	171	70	2	5	3.49	4.3	3.9	0	No projects.	2	2	2	3	0	9	High	MassDOT District 6 proposed this location for study (August, 2020), with strong support from Braintree. The corridor carries a high traffic volume in peak hours and lacks accommodation for people who walk or bike. It contains mixed land uses, with a high proportion of senior and young population.
Route 135	Hopkinton town line to Framingham city line	Ashland	MWRC	3	Ashland	3.1	3	12,000	233	53	4	6	3.58	3.4	3.2	0	MassDOT Project 603602: Ashland - Bridge Replacement, A-14-002, Route 135 (Union Street) over the Sudbury River. The proposed project consists of replacing the existing Union Street (Route 135) bridge over the Sudbury River in its present location with minor improvements to the approach roadways. The bridge will remain open during construction using staged construction. Completed in 2012.	1	2	2	2	1	8	High	In FFY 2018 MWRC meeting, Route 135 from Hopkinton to Natick was cited as a regional corridor needing Complete Streets improvements.
Route 1	Plainville town line to Foxborough town line	Wrentham	SWAP	5	MassDOT	2.5	3	27,500	223	65	0	0	3.58	1.8	0.0	1	No projects.	1	2	2	2	1	8	High	MassDOT District 5 proposed this location for study (August, 2019). This undivided highway carries a high volume of traffic and lacks pedestrian and bicycle accommodations. There are a number of ongoing and planned developments in the corridor.
Washington Street	Pleasant Street to Cobbs Corner	Canton	TRIC	6	Canton	2.9	3	15,000	319	58	1	9	3.58	4.0	3.4	0	MassDOT Project 602745: Canton- Improvements & Signalization, Route 138 (Turnpike Street) at Washington Street and Route 138 at Randolph Street. Construction ends in 2009.	2	2	1	2	1	8	High	CTPS conducted safety and operational analyses and proposed improvements at Washington Street and Randolph Street in 2018. Canton requested a study of the downtown section for signal coordination and pedestrian and bicycle safety and mobility improvements (2015 UPWP outreach).
Route 135	West Main Street to Ashland town line	Hopkinton	MWRC	3	Hopkinton	2.6	3	9,500	264	43	3	4	3.58	5.9	2.7	0	TIP/MassDOT Project 606043 (Signal and Intersection Improvements on Route 135): The project involves intersection improvements at Route 85, Pleasant Street and Wood Street. Major improvements include signal equipment upgrade and additional lanes at Route 85; possible signalization at Pleasant Street; minor widening, geometric modifications and equipment upgrades at Wood Street; pavement rehabilitation and drainage improvements from Ash Street to Wood Street; and reconstructed sidewalks and wheelchair ramps, and streetscape enhancements in the town center. The project is currently under design and is programmed in 2018-22 TIP.	2	2	1	1	1	7	Medium	In FFY 2018 MWRC meeting, Route 135 from Hopkinton to Natick was cited as a regional corridor needing Complete Streets improvements. MassDOT Project 606043 covers a major portion of Route 135 in Hopkinton.
Route 109	Millis town line to Dover town line	Medfield	TRIC	3	Medfield	3.2	3	16,000	296	47	3	1	3.58	3.2	1.3	0	MassDOT Project 609344: Medfield- Mills- Bridge Preservation, M-11-002, West Street over the Charles River and M-11-003, State 109 (Main Street) over the Charles River. This project is in the preliminary design phase.	1	2	2	1	1	7	Medium	In FFY 2018 UPWP outreach, Route 109 is cited as a major subregional travel route to Interstate 95/Route 128.
Route 85	Hopkinton town line to Marlborough city line	Southborough	MWRC	3	Southborough	4.3	5	8,000	194	31	0	0	3.49	3.1	0.0	0	MassDOT Project 603793: Rreplacement of the Route 85 (River Street) bridge over the Sudbury River, which connects Hopkinton and Southborough. Construction ended in Summer 2014.	1	2	2	1	1	7	Medium	In FFY 2018 MWRC meeting, Route 85 (Cordaville Road) was cited as a corridor needing improvements.
Massachusetts Avenue	Pine Court to Richardson Street	Arlington	ICC	4	MassDOT	0.3	3	30,000	57	9	1	1	3.58	3.5	6.7	0	No projects.	1	2	2	2	0	7	Medium	The town of Arlington proposed this section for study due to safety concern for pedestrians and bicyclists at Appleton Street and its adjacent areas. The proposed section includes two unsignalized intersections in close proximity, which may be more suitable for the MPO Safety and Operations Analysis at selected intersections program.
Route 129	Lynn town line to Marblehead town line	Swampscott	NSTF	4	Swampscott, DCR (less than 0.1 mi)	2.5	3	11,600	144	47	5	6	3.58	2.7	4.4	0	No projects	1	2	2	1	1	7	Medium	NSTF cited this roadway in 2013 as one of the subregion's priority roadways for study in the 2014 UPWP. Segment in downtown Swampscott is a bottleneck for those traveling from Marblehead to Lynn. MassDOT District 4 noted that the intersection of Route 129 and Burrill Street is a high crash location and an RSA could address safety and congestion issues.
Route 62	Olson Street to Middlesex Avenue	Wilmington	NSPC	4	Wilmington	2.0	5	12,100	217	57	2	1	3.49	4.9	1.5	0	MassDOT Project 605021: Wilmington Intersection Improvements on Route 62 (Middlesex Avenue) at Glenn Road and Wildwood Street. The project involves the installation of new traffic signal at the intersection of Route 62 (Middlesex Avenue) at Glen Road and Wildwood Street, reconfiguration of Glen Road intersection and widening of Route 62 (Middlesex Avenue) and Glen Road. The project is 96% Complete.	2	2	1	1	1	7	Medium	CTPS identified this location as a potential study site.
Lafayette Street (Route 1A/114)	Derby Street to Marblehead town line	Salem	NSTF	4	Salem	1.8	3	20,000	306	98	8	18	3.58	4.7	14.4	0	No projects.	2	2	1	1	1	7	Medium	North Shore Community Development Coalition cited this location in 2019 MPO outreach meeting.
Route 37 (Granite Street)	Five Corners (West Street/Franklin Street) to I-93	Braintree	SSC	6	MassDOT	1.0	3	35,000	342	137	1	9	3.58	5.1	9.6	2	MassDOT Project 608651: Installation of adaptive traffic control signal equipment, vehicle detection, communication equipment, and managing software at 7 traffic signals on Route 37 (Granite Street) in Braintree. The project received notice to proceed on 2/13/2019.	2	2	2	1	0	7	Medium	MassDOT Project 608651 covers this section of Route 37 in Braintree.
Willard Street	I-93 to Copeland Street/California Street	Quincy	ICC	6	MassDOT	1.7	5	15,000	171	33	1	7	3.49	3.7	4.7	1	No projects.	2	1	2	2	0	7	Medium	MassDOT District 6 proposed this location for study (August, 2020).

Roadway	Location	Community	MAPC Subregion	MassDOT District	Jurisdiction	Length (Miles)	Functional Classification*	Average Daily Traffic	Number of Crashes 2013-17	Number of Injury and Fatal Crashes 2013-17	Number of Bicycle Crashes 2013-17	Number of Pedestrian Crashes 2013-17	Statewide Average Crash Rate (MVMT)	Corridor Overall Crash Rate (MVMT)	Pedestrian and Bike Crashes Per Mile	HSIP-Eligible Crash Clusters 2015-17	Study, Project, or TIP Project	Safety Conditions	Multimodal Significance	Subregional Priority	Implementation Potential	Regional Equity	Score	Overall Assessment	Summary of Comments
Route 109	Walpole town line to Interstate 95	Westwood	ICC	6	Westwood	4.0	3	14,000	545	103	6	1	3.58	5.3	1.8	0	MassDOT Project 608947: Traffic Signal Improvements on Route 109. This project is at 25% design phase (9/13/2019). MassDOT Project 601315: Reconstruction of Route 109 (High Street) from Grove Street to Hartford Street, including new traffic signals at Hartford Street, Gay Street, Windsor Road/Public Library Entrance and Summer Street. Construction ended in Spring 2008.	2	2	2	1	0	7	Medium	Route 109 was mentioned as a major regional travel route in a 2018 SWAP subregional meeting. MassDOT Project 608947 covers a major portion of the corridor.
Route 27	Medfield town line to Natick town line	Sherborn	SWAP	3	Sherborn	4.3	3	12,500	271	69	2	0	3.58	2.8	0.5	1	No projects.	1	2	1	1	1	6	Medium	The location is identified by CTPS mainly due to the lack of pedestrian and bicycle accommodations. Major concern location in the Route 16 and Route 27 intersected area has been studied.
Route 2A (King Street)	Route 495 Southbound ramps to Ayer town line	Littleton	MAGIC	3	MassDOT	2.5	3	14,000	139	38	0	1	3.58	2.2	0.4	0	TIP/MassDOT 608443: Intersection Improvements on Route 2A at Willow Road and Bruce Street. The project involves intersection improvements, including geometric modifications, widening and signalization. Additional improvements involve updated signage and pavement markings. 25% Package rejected (01/28/2019).	1	2	2	0	1	6	Medium	Requested by Littleton in 2015.
Edgell Road	Water Street to the north of Route 9 in Framingham	Framingham	MWRC	3	Framingham	2.2	5	18,500	257	77	0	2	3.49	3.5	0.9	0	MassDOT Project 608889: Traffic Signal Installation at Edgell Road and Central Street. This project is in the preliminary design phase. Pre-TIP 602038 Edgell Road Corridor Project: Reconstruct pavement and improve signalization at Water St, Brook St, Central St, and Vernon St (close to Route 9) No projects in MassDOT project database.	0	2	2	1	1	6	Medium	The roadway was cited in 2017 MWRC subregional meeting.
Route 97	Route 1A to Wenham town line	Beverly	NSTF	4	Beverly	1.5	5	8,500	84	22	0	2	3.49	3.6	1.3	0	TIP/MassDOT Project 608347: Beverly- Intersection Improvements at three Locations: Cabot Street (Route 1A/97) at Dodge Street (Route 1A), County Way, Longmeadow Road and Scott Street, Mckay Street at Balch Street and Veterans Memorial Bridge (Route 1A) at Rantoul, Cabot, Water, and Front Streets. The project involves updating and modernizing traffic signal equipment at the intersections and providing on-street bicycle accommodations and wheelchair ramps at sidewalks at each intersection. Pavement milling and overlay at each intersection is also included in this work. 100% design package received (09/03/2019).	2	2	1	0	1	6	Medium	NSTF proposed to study this segment in conjunction with the Route 97 corridor in Boxford, Georgetown, and Haverhill (Merrimack Valley Planning Commission). This may have implementation challenges. The Beverly section is the most concerned location and is covered by Project 608347.
Route 115	Wrentham town line to Millis town line	Norfolk	SWAP	5	Norfolk	5.3	5	6,500	172	34	1	2	3.49	2.7	0.6	0	MassDOT Project 602496: Foxborough- Norfolk- Wrentham- Reconstruction of Route 115, Pond Street and Pine Street, from Needham Street in Norfolk to Route 140. The proposed project consists of safety and transportation improvements for 2.7 miles of Route 115 between Needham/North Street and Route 140, and 0.3 mile of Pine Street between Route 115 and Route 1. Completed in 2012.	1	2	1	1	1	6	Medium	MassDOT Project 602496 covers half of the corridor.
Main Street	Wakefield town line to Central Street	Saugus	ICC	4	Saugus and MassDOT	2.9	5	16,950	285	103	5	7	3.49	3.2	4.1	0	MassDOT Project 610534: Saugus- Pedestrian Improvements on Main Street/Route 1. This project is in the preliminary design phase.	1	2	1	1	0	5	Low	In FFY 2012 UPWP outreach, Saugus requested the MPO to consider performing a roadway/sidewalk/traffic light/pedestrian access assessment study, to be called a Main Street/Saugus Center Corridor Study.
Route 37	Brockton town line to Braintree town line	Holbrook	SSC	5	MassDOT and Holbrook	3.6	3	10,000	481	135	2	3	3.58	7.3	1.4	1	MassDOT Project 608543: Corridor Improvements and Related Work on South Franklin Street (Route 37) from Snell Street to King Road. The project consists of roadway rehabilitation to provide a consistent cross section, including sidewalk reconstruction, curb ramp installation and drainage upgrades along Route 37 for a length of 0.6 miles. This project is in the preliminary design phase.	1	1	2	1	0	5	Low	The Town of Holbrook has been in contact with the district and is interested in improvements, particularly multimodal transportation improvements (2012).

Acronyms and Abbreviations

CTPS = Central Transportation Planning Staff. DCR = Department of Conservation and Recreation. FFY = Federal Fiscal Year. HSIP = Highway Safety Improvement Program. ICC = Inner Core Committee. MAGIC = Minuteman Advisory Group on Interlocal Coordination. MassDOT = Massachusetts Department of Transportation. MVMT = Million vehicle miles traveled. MWRC = MetroWest Regional Collaborative. NSPC = North Suburban Planning Council. NSTF = North Shore Task Force. RSA = Road Safety Audit. SSC = South Shore Coalition. SWAP = South West Advisory Planning Committee. TIP = Transportation Improvement Program. TRIC = Three Rivers Interlocal Council. UPWP = Unified Planning Work Program.

Selection Criteria

Safety Conditions: Location has a high crash rate for its functional class or contains areas with a high number of crashes or with a significant number of pedestrian/bicycle crashes.

Multimodal Significance: Location supports transit, bicycle, or pedestrian activity, has significant potential to enhance these activities, or has a heavy vehicle (truck/bus) issue.

Subregional Priority: Location carries a significant proportion of subregional vehicle, bicycle, or pedestrian traffic or is essential for its subregional economic, cultural, or recreational development.

Implementation Potential: Location is proposed or endorsed by the subregion, by the roadway administrative agency (agencies), or has strong support from all of its stakeholders.

Regional Equity: Location is situated in a subregion that has not been selected for this study in the past two years.

*** Functional Classification**

2 = principal arterial; 3 = rural minor arterial or urban principal arterial; 5 = urban minor arterial or rural major collector; 6 = urban collector or rural minor collector

Source: Central Transportation Planning Staff.

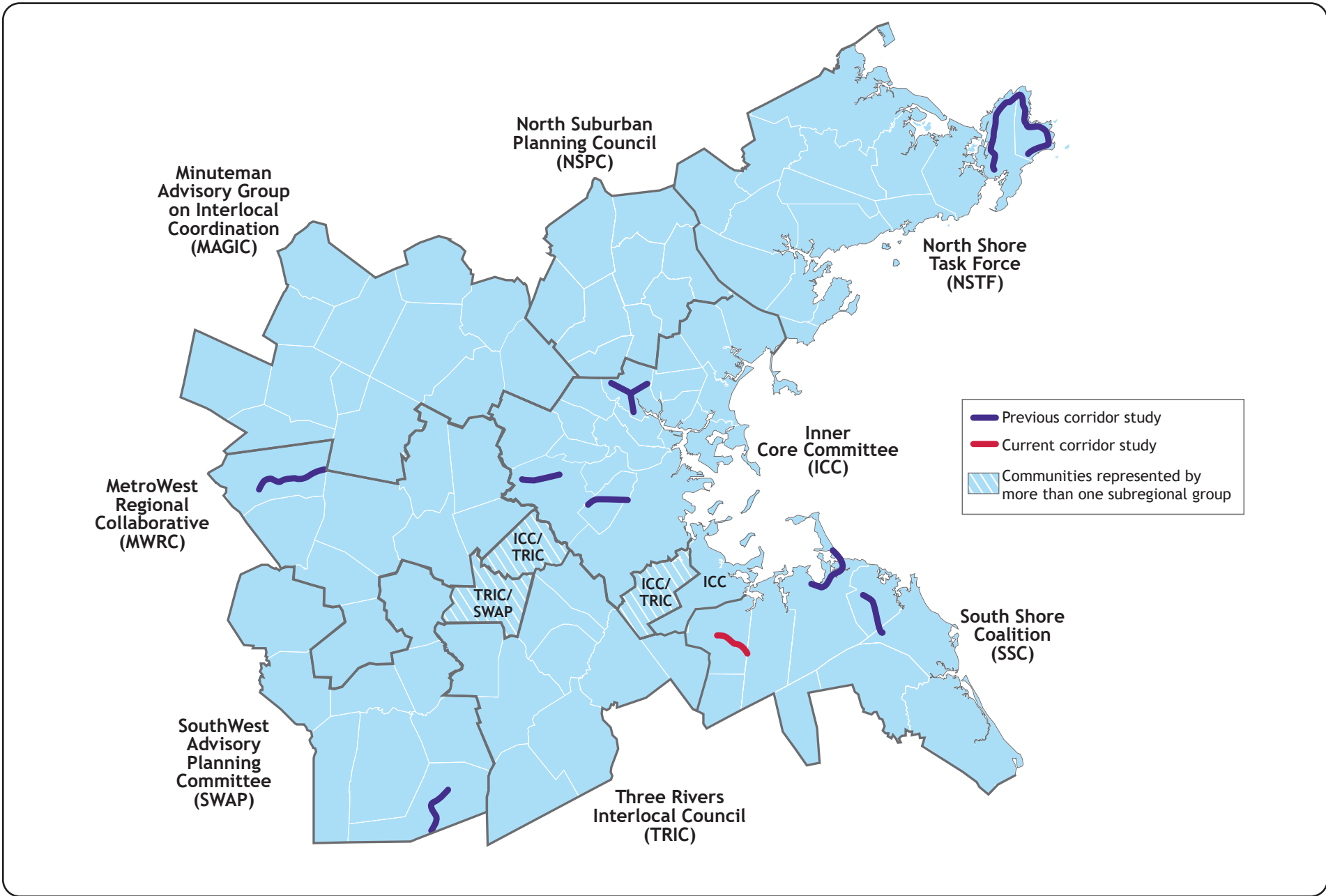


FIGURE 1
Study Locations

APPENDIX A

Pedestrian Report Card Assessment

Plain Street, Grove Street, and Columbian Street in Braintree
Route 135 in Ashland
Route 1 in Wrentham
Washington Street in Canton



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Pedestrian Report Card Assessment (PRCA): Roadway Segment

Roadway Segment Location

Plain Street, Grove Street and Columbian Street in Braintree

Grading Categories	Score	Rating
Safety	1.2	Poor
System Preservation	1.0	Poor
Capacity Management and Mobility	1.7	Poor
Economic Vitality	2.0	Fair

Transportation Equity

High Priority Area	
Moderate Priority Area	√
Low Priority Area	

Category Ratings

Good: Score 2.3 to 3.0

Fair: 2.3 > Score > 1.7

Poor: Score 1.7 to 0

Transportation Equity Priority

High: Four (4) or Five (5) Factors

Moderate: Two (2) or Three (3) Factors

Low: Zero (0) or One (1) Factor

Grading Categories: Scoring Breakdown Roadway Segment

Capacity Management and Mobility			
Performance Measure	Percentage	Score (out of 3.0)	Rating
Sidewalk Presence	50%	2.0	Fair
Crosswalk Presence	33%	1.0	Poor
Walkway Width	17%	2.0	Fair
TOTAL <small>(Sidewalk Presence Score * 0.5) + (Crosswalk Presence Score * 0.33) + (Walkway Width Score * 0.17)</small>	100%	1.7	Poor

Economic Vitality			
Performance Measure	Percentage	Score (out of 3.0)	Rating
Pedestrian Volumes	50%	3.0	Good
Adjacent Bicycle Accommodations	50%	1.0	Poor
TOTAL <small>(Pedestrian Volumes Score * 0.5) + (Adjacent Bicycle Accommodations Score * 0.5)</small>	100%	2.0	Fair

Meaning of Ratings

Good: 3.0
Fair: 2.0
Poor: 1.0

Transportation Equity Priority

High: Four (4) or Five (5) Factors
Moderate: Two (2) or Three (3) Factors
Low: Zero (0) or One (1) Factor

Safety			
Performance Measure	Percentage	Score (out of 3.0)	Rating
Pedestrian Crashes	60%	1.0	Poor
Pedestrian-Vehicle Buffer	20%	2.0	Fair
Vehicle Travel Speed	20%	1.0	Poor
TOTAL <small>(Pedestrian Crashes Score * 0.6) + (Pedestrian-Vehicle Buffer Score * 0.2) + (Vehicle Travel Speed Score * 0.2)</small>	100%	1.2	Poor

System Preservation			
Performance Measure	Percentage	Score (out of 3.0)	Rating
Sidewalk Condition	100%	1.0	Poor

Transportation Equity Priority	
Area Condition	Yes/No
Low Income Population \geq 32.32%	No
Minority Population \geq 28.19%	No
6.69%+ of Population > 75 Years of Age	Yes
16.15%+ of Households w/o Vehicle	No
Within ¼ Mile of School/College	Yes

Roadway Segment Notes

Detailed Performance Measure Information

Goal	Performance Measure	Features of Analyzed Locations
Capacity Management and Mobility	Sidewalk Presence	Sidewalks exist mainly on the north side of the corridor, with limited sections on both sides.
	Crosswalk Presence	Eight crosswalks exist in the corridor of about 1.8 miles.
	Walkway Width	Walkways generally are at least five feet wide.
Economic Vitality	Pedestrian Volumes	Three major intersections in the corridor with frequent pedestrian crossings.
	Adjacent Bicycle Accommodations	No separated or shared bike lane and shoulder are less than five feet wide.
Safety	Pedestrian Crashes	Five pedestrian crashes in 2013–17 in the 1.8-mile corridor.
	Pedestrian-Vehicle Buffer	The roadway shoulders are about two to three feet in general.
	Vehicle Travel Speed	Assume about generally 40 MPH to 45 MPH in the corridor.
System Preservation	Sidewalk Condition	No sidewalks exist on the south side and many existing sections are not in good conditions.



Central Transportation Planning Staff (CTPS) to the Boston Region MPO:
www.ctps.org | 857.702.3700 | ctps@ctps.org

Ryan Hicks, Congestion Management Process Manager:
www.ctps.org/cmp | 857.702.3661 | rhicks@ctps.org

Casey Claude, Bicycle and Pedestrian Program Manager:
www.ctps.org/bicycle-pedestrian-activities | 857.702.3707 | cclaude@ctps.org

Pedestrian Report Card Assessment (PRCA): Roadway Segment

Roadway Segment Location

Route 135 in Ashland

Grading Categories	Score	Rating
Safety	1.2	Poor
System Preservation	2.0	Fair
Capacity Management and Mobility	1.8	Fair
Economic Vitality	2.0	Fair

Transportation Equity

High Priority Area	
Moderate Priority Area	√
Low Priority Area	

Category Ratings

Good: Score 2.3 to 3.0

Fair: 2.3 > Score > 1.7

Poor: Score 1.7 to 0

Transportation Equity Priority

High: Four (4) or Five (5) Factors

Moderate: Two (2) or Three (3) Factors

Low: Zero (0) or One (1) Factor

Grading Categories: Scoring Breakdown Roadway Segment

Capacity Management and Mobility			
Performance Measure	Percentage	Score (out of 3.0)	Rating
Sidewalk Presence	50%	2.0	Fair
Crosswalk Presence	33%	1.0	Poor
Walkway Width	17%	3.0	Good
TOTAL <small>(Sidewalk Presence Score * 0.5) + (Crosswalk Presence Score * 0.33) + (Walkway Width Score * 0.17)</small>	100%	1.8	Fair

Economic Vitality			
Performance Measure	Percentage	Score (out of 3.0)	Rating
Pedestrian Volumes	50%	3.0	Good
Adjacent Bicycle Accommodations	50%	1.0	Poor
TOTAL <small>(Pedestrian Volumes Score * 0.5) + (Adjacent Bicycle Accommodations Score * 0.5)</small>	100%	2.0	Fair

Meaning of Ratings

Good: 3.0
Fair: 2.0
Poor: 1.0

Transportation Equity Priority

High: Four (4) or Five (5) Factors
Moderate: Two (2) or Three (3) Factors
Low: Zero (0) or One (1) Factor

Safety			
Performance Measure	Percentage	Score (out of 3.0)	Rating
Pedestrian Crashes	60%	1.0	Poor
Pedestrian-Vehicle Buffer	20%	2.0	Fair
Vehicle Travel Speed	20%	1.0	Poor
TOTAL <small>(Pedestrian Crashes Score * 0.6) + (Pedestrian-Vehicle Buffer Score * 0.2) + (Vehicle Travel Speed Score * 0.2)</small>	100%	1.2	Poor

System Preservation			
Performance Measure	Percentage	Score (out of 3.0)	Rating
Sidewalk Condition	100%	2.0	Fair

Transportation Equity Priority	
Area Condition	Yes/No
Low Income Population \geq 32.32%	No
Minority Population \geq 28.19%	No
6.69%+ of Population > 75 Years of Age	Yes
16.15%+ of Households w/o Vehicle	No
Within ¼ Mile of School/College	Yes



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Pedestrian Report Card Assessment (PRCA): Roadway Segment

Roadway Segment Location

Route 1 in Wrentham

Grading Categories	Score	Rating
Safety	2.2	Fair
System Preservation	1.0	Poor
Capacity Management and Mobility	1.0	Poor
Economic Vitality	1.5	Poor

Transportation Equity

High Priority Area	
Moderate Priority Area	
Low Priority Area	√

Category Ratings

Good: Score 2.3 to 3.0

Fair: 2.3 > Score > 1.7

Poor: Score 1.7 to 0

Transportation Equity Priority

High: Four (4) or Five (5) Factors

Moderate: Two (2) or Three (3) Factors

Low: Zero (0) or One (1) Factor

Grading Categories: Scoring Breakdown Roadway Segment

Capacity Management and Mobility			
Performance Measure	Percentage	Score (out of 3.0)	Rating
Sidewalk Presence	50%	1.0	Poor
Crosswalk Presence	33%	1.0	Poor
Walkway Width	17%	1.0	Poor
TOTAL <small>(Sidewalk Presence Score * 0.5) + (Crosswalk Presence Score * 0.33) + (Walkway Width Score * 0.17)</small>	100%	1.0	Poor

Economic Vitality			
Performance Measure	Percentage	Score (out of 3.0)	Rating
Pedestrian Volumes	50%	1.0	Poor
Adjacent Bicycle Accommodations	50%	2.0	Fair
TOTAL <small>(Pedestrian Volumes Score * 0.5) + (Adjacent Bicycle Accommodations Score * 0.5)</small>	100%	1.5	Poor

Meaning of Ratings

Good: 3.0
Fair: 2.0
Poor: 1.0

Transportation Equity Priority

High: Four (4) or Five (5) Factors
Moderate: Two (2) or Three (3) Factors
Low: Zero (0) or One (1) Factor

Safety			
Performance Measure	Percentage	Score (out of 3.0)	Rating
Pedestrian Crashes	60%	3.0	Good
Pedestrian-Vehicle Buffer	20%	1.0	Good
Vehicle Travel Speed	20%	1.0	Poor
TOTAL <small>(Pedestrian Crashes Score * 0.6) + (Pedestrian-Vehicle Buffer Score * 0.2) + (Vehicle Travel Speed Score * 0.2)</small>	100%	2.2	Fair

System Preservation			
Performance Measure	Percentage	Score (out of 3.0)	Rating
Sidewalk Condition	100%	1.0	Poor

Transportation Equity Priority	
Area Condition	Yes/No
Low Income Population \geq 32.32%	No
Minority Population \geq 28.19%	No
6.69%+ of Population > 75 Years of Age	Yes
16.15%+ of Households w/o Vehicle	No
Within ¼ Mile of School/College	No



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Pedestrian Report Card Assessment (PRCA): Roadway Segment

Roadway Segment Location		
Washington Street in Canton		

Grading Categories	Score	Rating
Safety	1.2	Poor
System Preservation	2.0	Fair
Capacity Management and Mobility	2.0	Fair
Economic Vitality	2.0	Fair

Transportation Equity	
High Priority Area	
Moderate Priority Area	√
Low Priority Area	

Category Ratings

Good: Score 2.3 to 3.0
Fair: 2.3 > Score > 1.7
Poor: Score 1.7 to 0

Transportation Equity Priority

High: Four (4) or Five (5) Factors
Moderate: Two (2) or Three (3) Factors
Low: Zero (0) or One (1) Factor

Grading Categories: Scoring Breakdown Roadway Segment

Capacity Management and Mobility			
Performance Measure	Percentage	Score (out of 3.0)	Rating
Sidewalk Presence	50%	2.0	Fair
Crosswalk Presence	33%	2.0	Fair
Walkway Width	17%	2.0	Fair
TOTAL <small>(Sidewalk Presence Score * 0.5) + (Crosswalk Presence Score * 0.33) + (Walkway Width Score * 0.17)</small>	100%	2.0	Fair

Economic Vitality			
Performance Measure	Percentage	Score (out of 3.0)	Rating
Pedestrian Volumes	50%	3.0	Good
Adjacent Bicycle Accommodations	50%	1.0	Poor
TOTAL <small>(Pedestrian Volumes Score * 0.5) + (Adjacent Bicycle Accommodations Score * 0.5)</small>	100%	2.0	Fair

Meaning of Ratings

Good: 3.0
Fair: 2.0
Poor: 1.0

Transportation Equity Priority

High: Four (4) or Five (5) Factors
Moderate: Two (2) or Three (3) Factors
Low: Zero (0) or One (1) Factor

Safety			
Performance Measure	Percentage	Score (out of 3.0)	Rating
Pedestrian Crashes	60%	1.0	Poor
Pedestrian-Vehicle Buffer	20%	2.0	Fair
Vehicle Travel Speed	20%	1.0	Poor
TOTAL <small>(Pedestrian Crashes Score * 0.6) + (Pedestrian-Vehicle Buffer Score * 0.2) + (Vehicle Travel Speed Score * 0.2)</small>	100%	1.2	Poor

System Preservation			
Performance Measure	Percentage	Score (out of 3.0)	Rating
Sidewalk Condition	100%	2.0	Fair

Transportation Equity Priority	
Area Condition	Yes/No
Low Income Population \geq 32.32%	No
Minority Population \geq 28.19%	No
6.69%+ of Population > 75 Years of Age	Yes
16.15%+ of Households w/o Vehicle	No
Within ¼ Mile of School/College	Yes

Roadway Segment Notes

Detailed Performance Measure Information

Goal	Performance Measure	Features of Analyzed Locations
Capacity Management and Mobility	Sidewalk Presence	Sidewalks exist on both sides of the corridor, except the east side from the north of Wildewood Drive to Draper Street and the west side from the south of Pond Street to Cobbs Corner.
	Crosswalk Presence	24 crosswalks exist on Washington Street from Pleasant Street to Cobbs Corner.
	Walkway Width	Walkways generally are at least five feet wide.
Economic Vitality	Pedestrian Volumes	Six major intersections in the downtown area with frequent pedestrian crossings.
	Adjacent Bicycle Accommodations	No separated or shared bike lane and shoulder are less than five feet wide.
Safety	Pedestrian Crashes	Nine pedestrian crashes in 2013–17 in the nearly 3 miles stretch.
	Pedestrian-Vehicle Buffer	The roadway shoulders are about two to five feet in general.
	Vehicle Travel Speed	Assume about 30 MPH in the downtown sections and about 40 MPH in other sections.
System Preservation	Sidewalk Condition	Sidewalks are generally in fair conditions.

APPENDIX B
Support Letters

The Commonwealth of Massachusetts
GENERAL COURT

October 22, 2020

To Whom it May Concern:

We write today in support of the recent selection of certain roads in the Town of Braintree for inclusion in the FFY 2021 MPO Subregional Corridor Study, specifically, Grove Street from John Mahar Highway to Columbian Street. We greatly appreciate your attention to this area of Braintree.

The Grove Street corridor has been of growing concern to residents and local officials, due to incidents of speeding and the number of accidents. Where side streets and driveways intersect with Grove Street, sight lines are poor, and turning angles in some locations are hazardous. Addressing this vehicular issue is important, as is addressing the need for pedestrian improvements. Sidewalks along the corridor are uneven, narrow, and undefined. Some are asphalt and others concrete, often with poor transitions between the two. Where driveways and side streets intersect with Grove Street, there are insufficient markings such as crosswalks, a lack of pedestrian and vehicular signage, a lack of median refuge islands, insufficient lighting, and too few or non-ADA compliant curb ramps. The combination of the above conditions make vehicular and pedestrian travel in this area hazardous, particularly for elderly and wheelchair bound residents living in nearby senior residences.

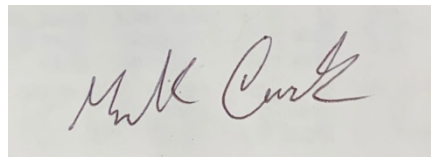
Having this corridor included in the FFY 2021 MPO Subregional Corridor Study will lay the foundation for the work that is so obviously needed along this stretch of Grove Street.

We thank you again for including the Grove Street corridor, and offer our willingness to provide any assistance you may need.

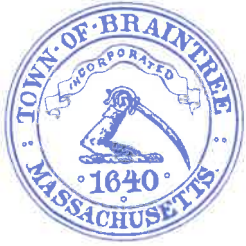
Sincerely,



John F. Keenan
State Senator



Mark J. Cusack
State Representative



Office of the Mayor
One JFK Memorial Drive
Braintree, Massachusetts 02184

Charles C. Kokoros
Mayor

781-794-8100

November 25, 2020

Mr. Mark Abbott
Manager of Traffic Analysis and Design
Central Transportation Planning Staff / Boston Region MPO
10 Park Plaza, Suite 2150
Boston, MA 02116

Mr. Abbott,

The Town of Braintree is pleased to offer this letter of support to the Boston Region MPO in its consideration for a corridor study targeting Old Route 128, which includes Grove Street and Columbian Street in Braintree.

The Town of Braintree is committed to facilitating the project however possible, including hosting meetings with stakeholders, making staff available to review plans and provide feedback and also helping solicit feedback from the community for the study.

The Town is enthusiastic about this opportunity and looks forward to working with State Officials to examine ways to make this corridor safer and more efficient for all users.

Sincerely,

A handwritten signature in black ink that reads "Charles C. Kokoros". The signature is written in a cursive style.

Charles C. Kokoros
Mayor